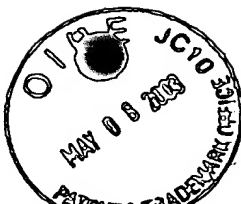


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First Named Inventor	M.E. Tremblay
Group Art Unit	1724
Examiner Name	Ivars C. Cintins
Attorney Docket Number	7568M

U. S. PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
L.C.	1	US- 5,187,237	02/16/1993	Nordmann, et al	525 326.2
L.C.	2	US- 5,189,092	02/23/1993	Koslow	524 495
L.C.	3	US- 5,331,037	07/19/1994	Koslow	524 496
L.C.	4	US- 6,030,698	02/29/2000	Burchell, et al.	428 315.5
L.C.	5	US- 5,607,595	03/04/1997	Hiasa, et al.	210 669
L.C.	6	US- 5,310,593	05/10/1994	Tsujimoto, et al.	428 166
L.C.	7	US- 4,576,929	03/18/1986	Shimazaki	502 417
L.C.	8	US- 4,828,698	05/09/1989	Jewell, et al.	210 266
L.C.	9	US- 5,705,269	01/06/1998	Pimenov, et al.	428 375
L.C.	10	US- 5,762,797	06/09/1998	Patrick, et al.	210 497.1
L.C.	11	US- 5,227,238	07/13/1993	Hirai, et al.	428 367
L.C.	12	US- 5,744,236	04/28/1998	Rohrbach, et al.	428 372
L.C.	13	US- 6,155,432	12/05/2000	Wilson, et al.	210 505
L.C.	14	US- 5,989,736	11/23/1999	Lintz, et al.	428 688
L.C.	15	US- 4,696,742	09/29/1987	Shimazaki	210 287
L.C.	16	US- 5,834,114	11/10/1998	Economy, et al.	428 368
L.C.	17	US- 5,795,843	08/18/1998	Endo	502 416
L.C.	18	US- 5,776,385	07/07/1998	Gadkaree, et al.	264 29.5
L.C.	19	US- 5,773,143	06/30/1998	Vermilion, et al.	428 368
L.C.	20	US- 5,750,026	05/12/1998	Gadkaree, et al.	210 502.1
L.C.	21	US- 5,658,372	08/19/1997	Gadkaree	95 116
L.C.	22	US- 5,446,005	08/29/1995	Endo	502 433
L.C.	23	US- 5,308,703	05/03/1994	Tsujimoto, et al.	428 408
L.C.	24	US- 5,091,164	02/25/1992	Takabatake	423 445
L.C.	25	US- 5,143,889	09/01/1992	Takahiro, et al.	502 427
L.C.	26	US- 4,831,011	05/16/1989	Oikawa, et al.	502 406
L.C.	27	US- 4,734,394	03/29/1988	Kosaka, et al.	502 434
L.C.	28	US- 4,434,206	02/28/1984	Fukuda, et al.	428 288
L.C.	29	US- 4,205,055	05/27/1980	Maire, et al.	423 445
L.C.	30	US- 3,836,458	09/17/1974	Walls, et al.	210 638
L.C.	31	US- 3,888,958	06/10/1975	Juntgen, et al.	264 29
L.C.	32	US- 3,814,642	06/04/1974	Araki, et al.	156 60
L.C.	33	US- 3,558,276	01/26/1971	Otani	423 445R
L.C.	34	US- 3,419,645	12/31/1968	Pietzka, et al.	264 29
L.C.	35	US- 3,283,040	11/01/1966	Stover	264 29
L.C.	36	US- 5,024,764	06/18/1991	Holler	210 484
L.C.	37	US- 4,772,508	09/20/1988	Brassell	428 218
L.C.	38	US- 4,772,455	09/20/1988	Izumi, et al	423 210
L.C.	39	US- 4,573,464	03/04/1986	Yo	128 206.15
L.C.	40	US- 3,972,818	08/03/1976	Bokros	210 435

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	FOREIGN PATENT DOCUMENT Country Code ³ Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
L.C.	41	EP 0 792 676 A1	09/03/1997	Koslow, et al.	—	—
L.C.	42	EP 0 366 539 A2	05/02/1990	Kaneko, et al.	—	—

L.C.	43	DE 3,020,615 A1	12/11/1980	Beauman, et al.	
L.C.	44	JP 304,095	12/07/1989	Oidara, et al.	
L.C.	45	JP 04-247,233	09/03/1992	Maeda, et al.	
L.C.	46	JP 05-253,478	10/05/1993	Tsujimoto, et al.	
L.C.	47	JP 07-080,449	03/28/1995	Maebashi, et al.	
L.C.	48	JP 08-099,080	04/16/1996	Matsumoto, et al.	
L.C.	49	JP 10-052,616	02/24/1998	Nagahama, et al.	
L.C.	50	JP 10-139,645	05/26/1998	Murakami	
L.C.	51	JP 58-131,187	08/04/1983	Tanaka	
L.C.	52	EP 0 364 111 A1	04/18/1990	Muramatsu, et al.	
L.C.	53	EP 0 439 005 A1	07/31/1991	Iizuka	
L.C.	54	EP 0 551 864 A1	07/21/1993	Fujisawa, et al.	
L.C.	55	UK 2 311 775 A	10/08/1997	Suh	
L.C.	56	WO 95/06507	03/09/1995	Mitschke	
L.C.	57	UK 2 051 770 A	01/21/1981	Beauman, et al.	

NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
L.C.	58	C.P. GERBA, "Applied and Theoretical Aspects of Virus Adsorption to Surfaces", <u>Advances in Applied Microbiology</u> , Vol. 30, pp. 133 - 168 (1964).	
L.C.	59	R.V. JASRA, et al., "Separation of Gases by Pressure Swing Adsorption", <u>Separation Science and Technology</u> , Vol. 26, No. 7, pp. 885-930 (1991).	
L.C.	60	K. KANEKO, et al., "Microporosity and Adsorption Characteristics Against NO, SO ₂ , and NH ₃ , of Pitch-Based Activated Carbon Fibers", <u>Carbon</u> , Vol. 26, No. 3, pp. 327 - 332 (1988).	
L.C.	61	T.D. BURCHELL, et al., "The Effect of Neutron Irradiation on the Structure and Properties of Carbon-Carbon Composite Materials", <u>Effects of Radiation on Materials: 16th International Symposium, ASTM STP 1175</u> , American Society for Testing and Materials, Philadelphia, 1993.	
L.C.	62	G.C. WEI, et al., "Carbon-Bonded Carbon Fiber Insulation for Radioisotope Space Power Systems", <u>Ceramic Bulletin</u> , Vol. 64, No. 5, pp. 691 - 699 (1985).	
L.C.	63	M.W. LeCHEVALLIER, et al., "Disinfection of Bacteria Attached to Granular Activated Carbon", <u>Applied and Environmental Microbiology</u> , Vol. 48, No. 5, pp. 918 - 923 (1984).	
L.C.	64	A. SAKODA, et al., "Adsorption of Viruses in Water Environment onto Solid Surfaces", <u>Wat. Sci. Tech.</u> , Vol. 35, No. 7, pp. 107 - 114 (1997).	
L.C.	65	G.M. KIMBER, et al., "Fabrication of Carbon Fibre Composites for Gas Separation", <u>Gas Sep. Purif.</u> , Vol. 10, No. 2, pp. 131 - 136 (1996).	
L.C.	66	S.K. RYU, "Porosity of Activated Carbon Fibre", <u>High Temperatures - High Pressures</u> , Vol. 22, pp. 345 - 354 (1990).	
L.C.	67	F. DERBYSHIRE, et al., "Carbon Fiber Composite Molecular Sieves for Gas Separation", <u>Eighth CIMTEC</u> , Florence, Italy, June 28 - July 2, 1994.	
L.C.	68	M. JAGTOYEN, et al., "Novel Activated Carbon Materials For Water Treatment", <u>The European Carbon Conference "Carbon 96"</u> , Newcastle, UK July 1996.	
L.C.	69	I. BAUTISTA - TOLEDO, et al., "Activated Carbons as Adsorbents of Bacteria", <u>Conference Proceedings for Eurocarbon '98</u> , Strasbourg, France July 5 - 9, 1998.	
L.C.	70	N. OPENKO, et al., "Application of Carbon Materials in Water Purification", <u>Conference Proceedings for Eurocarbon '98</u> , Strasbourg, France July 5 - 9, 1998.	
L.C.	71	T.M. POWELL, et al., "Adsorption of a Model Bacteriophage by Activated Carbon", <u>University of Kentucky, Dept. of Civil Engineering and Center for Applied Energy Research</u> , pp. 685 - 690	
L.C.	72	T. POWELL, et al., "Investigating the Effect of Carbon Shape on Virus Adsorption", <u>Environmental Science and Technology</u> , Vol. 34, No. 11, pp. 2779 - 2783 (2000).	
L.C.	73	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF RESEARCH AND DEVELOPMENT, "Stormwater Treatment at Critical Areas: Evaluation of Filtration Methods", EPA/600/R-00/010, pp.1 - 380, October 1999.	
EXAMINER		I. C. Continis	DATE CONSIDERED July 27, 2003

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